ABSTRACT

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Compounds useful for detecting a source of hydrogen peroxide are disclosed wherein a signalling compound of the formula:

Sig
$$-B < OR^{5}$$

is reacted with peroxide. Sig is an aromatic or heteroaromatic ring group, B is a boron atom, and R⁵ and R⁶ are
independently selected from hydrogen and lower alkyl groups
and can be joined together as a straight or branched
alkylene chain forming a five or six-membered ring. A
detectable product compound of the formula Sig — OH Is
produced and detected by measuring color, fluorescence,
chemiluminescence, or bioluminescence. The signalling
compound itself does not possess the detectable property or
does so only to a very weak degree. The compounds can be
used for detection in assays for peroxide or peroxideproducing enzymes and in assays employing enzyme-labeled
specific binding pairs.